

AMERICAN MUSEUM NOVITATES

Published by

Number 1089 THE AMERICAN MUSEUM OF NATURAL HISTORY October 24, 1940
New York City

A NEW GENUS AND TWO NEW SPECIES OF POLYCHAETOUS ANNELIDS FROM TEXAS AND ONE NEW SPECIES FROM THE PHILIPPINE ISLANDS

BY AARON L. TREADWELL

The following is a description of two new species and one new genus of annelids sent me for identification by Mr. Ottys Sanders of Dallas, Texas, and one new species from the collections of The American Museum of Natural History.

Amphinomidae

METAMPHINOME, NEW GENUS

Prostomium rounded anteriorly, moderately prolonged posteriorly. Caruncle none, eyes none. Tentacles five, anterior and posterior paired, median unpaired. Body fusiform, somites relatively few in number. Dorsal and ventral cirri occur only on anterior somites. No heavy hooks on first setigerous somite. Gills dichotomously divided flattened plates.

GENOTYPE.—*Metamphinome multibranchiata* Treadwell.

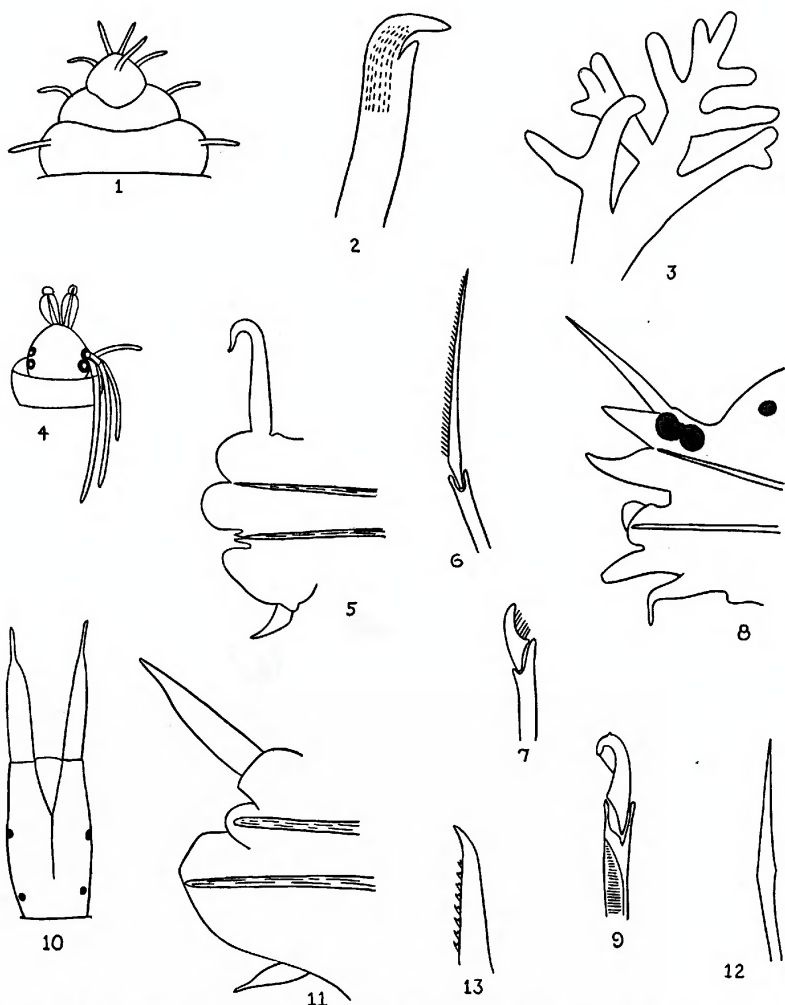
In structure of head region and gills this genus conforms to the diagnosis of *Paramphinome* as given by Sars (1872, p. 45, Pl. iv, figs. 19–35), but differs in that there are no hooks on the first setigerous somite. Another character given by Sars is that the gills are restricted to certain anterior somites. This feature is also mentioned in a diagnosis of the genus given by Fauvel (1932, p. 51). Fauvel differs from Sars, however, in that he states that there is a small caruncle. In the genus *Leodice* there is wide variability in the number and arrangement of the gills and it seems possible that this gill limitation is not of generic value in *Paramphinome* although in all of the species of this genus whose descriptions I have seen the gills are stated to be restricted in this fashion. In *Metamphinome multibranchiata* they continue to the extreme posterior end of the body.

Metamphinome multibranchiata, new species

Figures 1 to 3

The type specimen is 20 mm. long and 5 mm. wide in the middle of the body, tapering from this widest portion toward both head and tail. The prostomium and pygidium are of about equal width (0.5 mm.) and posterior somites are shorter than anterior ones. There are about 28 somites. The prostomium (Fig. 1) is broadly rounded anteriorly, its posterior margin extending backward into the first somite. Its length and breadth are about equal. There are no eyes. The anterior paired tentacles are attached at the anterior prostomial margin, their bases separated by a distance about equal to their diameter. Their length is about equal to one-half that of the prostomium. The posterior paired tentacles are situated on the prostomial margin at the same level as the anterior ones, with which they agree in size. The unpaired tentacle is situated on the dorsal prostomial surface a little posterior to a line joining the bases of the posterior paired ones and is a little longer than they are. The first somite is excavated along its anterior border for the insertion of a prolongation of the prostomium, its posterior margin extends into a broad shallow depression in the anterior margin of somite 2. The posterior margin of the peristomium is about twice as wide as the anterior, the lateral margins curved. Somite 2 is noticeably wider and longer than the peristomium and later somites are of about the same length until after the median region is reached. Toward the pygidial region they become shorter.

Dorsal cirri occur only on the first two somites, where they are a little larger than the tentacles but otherwise similar to them. Ventral cirri occur on about ten somites. The setae begin on the peristomium where the notosetae form a small tuft situated antero-ventrally to the dorsal cirrus. In somite 2 these lie anteriorly to the cirrus and in later somites they form prominent tufts on the dorso-lateral surface of the somite. They arise directly from the body wall, there being no definite parapodia. The notosetae are all long, slender, sharp-pointed and colorless. They show no marginal toothings but the surface is covered by minute spines giving it a "sha-



Figs. 1 to 3. *Metamphinome multibranchiata*: 1, head region $\times 7.5$; 2, seta $\times 185$; 3, gill $\times 45$.

Figs. 4 to 9. *Uncinereis trimaculosa*: 4, head region $\times 7$; 5, anterior parapodium $\times 40$; 6, seta $\times 250$; 7, seta $\times 250$; 8, posterior parapodium $\times 40$; 9, posterior seta $\times 250$.

Figs. 10 to 13. *Lepidonotus atratus*: 10, head region $\times 20$; 11, parapodium $\times 25$; 12, seta $\times 250$; 13, seta $\times 250$.

green" appearance. The neurosetae occur on the ventral body surface nearer the median ventral line than they are to the notosetal tuft. The body surface between the two is perfectly smooth, there being no indication of any parapodial structure connecting the two setal tufts. The neurosetae are grouped in compact bundles each containing about eight setae whose outer ends are closely bunched together. When seen under low magnification the row on either side the mid-ventral line made up by these tufts has a superficial resemblance to a series of gland openings. The setae are heavy (Fig. 2), strongly curved and hooked at the ends, with a short, stout hook lying in the concavity of the larger one.

The gills first appear on the third somite. Each is made up of a number of branched divisions arising from a common base. Figure 3 is of one of these divisions. They continue to the extreme posterior end of the body.

The type is Cat. No. 2887 in the collections of The American Museum of Natural History, Department of Living Invertebrates, and is a female with eggs. This condition may account for its body width, another specimen nearly as long as the type having a width not more than one-half as great.

Collected at Galveston, Texas, by Ottys Sanders and recorded as taken from a floating log.

UNCINEREIS CHAMBERLIN

Uncinereis trimaculosa, new species

Figures 4 to 9

The type and only specimen is recorded as collected on a floating log at Galveston, Texas, by Ottys Sanders. An unknown but evidently not very large number of the extreme posterior somites are missing. What remains is 18 mm. long. The greatest width is in the region of the sixth somite where from the ends of the setae of one side to those of the other it measures 3 mm. The body is colorless except that in the posterior region there are on either side three pigment spots on the dorsal surface of each notopodium. Possibly because of the structure of the alimentary canal, the anterior body region is opaque, but the posterior half is translucent.

The peristomium (Fig. 4) is rather globular in outline, showing no definite narrowing in front of the anterior eyes, the antero-lateral margins converging to a blunt point. The tentacles are slender, separated at their bases by a distance a little greater than their basal diameters. Their apices reach nearly to the ends of the palps. There are two pairs of prominent eyes having very large lenses, the pigmented portion a reddish brown. The palps are shorter than the prostomium, their basal joints thick club-shaped, their apices a little wider than their bases. Terminal palpal joint globular. The anterior and posterior dorsal tentacular cirri are of about equal length, extending to about somite 7. The anterior ventral is about one-third, the posterior ventral about two-thirds as long as the dorsal. The peristomium is 1.5 mm. in diameter, noticeably wider than the prostomium, its anterior margin slightly overlapping the latter. Its length is only a little greater than that of somite 2.

The first four parapodia are slender, the fifth to eighth thicker than these and with more prominent dorsal cirri, later ones slender (Fig. 5, representing the eighth). In this parapodium the lobes are all rounded, the dorsal acicula coming to the surface between the dorsal and median lobes, the ventral one at some smaller lobes lying between the median and ventral. The dorsal cirrus is heavy and situated well toward the end of the notopodium. At its base are obscure pigment patches visible only under magnification and corresponding in position to those prominent ones in posterior somites. The ventral is small, conical in shape, situated at some distance from the apex of the setal lobe. The notosetae are all of one kind, the basal joints homogomphous, the terminal ones long, slender and sharp-pointed, one margin with a fringe of spines (Fig. 6). The dorsalmost of the neurosetae are similar to the notosetae in form. Ventral to these is a second kind (Fig. 7). In these the basal joints are heterogomphous, the terminal joints short, hooked, with lateral row of spines.

In the posterior parapodia (Fig. 8), the lobes are all more or less conical, the dorsal cirrus is

slender and long, the ventral cirrus much larger than anteriorly. At the base of the dorsal cirrus are two prominent pigment spots, brown in color, with a smaller one on the body wall. The setae are essentially the same as in the anterior somites except that the notosetae are somewhat longer as to terminal joints. In addition, parallel to the notopodial aciculae are the heavy setae characteristic of the genus *Uncinereis*. These (Fig. 9) have heavy cambered homogomphous basal joints and heavy hooked ones inserted into the ends of the basal. At the apex of the terminal joint is a very small tooth-like structure which is so constantly found that it appears not to be merely an accidental break; and a definite guard extending from below the apex to the main part of the joint.

The type is Cat. No. 2888 in the collections of The American Museum of Natural History, Department of Living Invertebrates.

LEPIDONOTUS LEACH

Lepidonotus atratus, new species

Figures 10 to 13

Body of type 15 mm. long; width to ends of setae 3 mm. Prostomial width 0.5 mm.; its length to bases of tentacles about twice its width.

There is a slight bulging on the sides of the prostomium at about the level of the anterior eyes but its general effect is that of a rectangle whose length is about twice that of its width. In the preserved specimen a fold from the anterior border of the first somite covers the prostomium as far as in front of the posterior eyes. The cirrophore of the median tentacle is comparatively small and its style is lost. The lateral tentacles (Fig. 10) are of nearly uniform diameter to near the apices and terminate in slender filaments. The eyes are small. The ventral tentacular cirri are similar in form and size to the lateral tentacles, dorsal ones of similar form but much larger. The palps are not longer than the lateral tentacles but much heavier and they have short terminal filaments. Their surfaces are covered with short, sharp, papillae visible under a magnification of 40 diameters.

In the parapodia the notopodium (Fig. 11) is much smaller than the neuropodium, each carrying a heavy acicula. The dorsal cirrus has a heavy cirrophore, its filamentous apex reaching to the ends of the setae. The ventral cirrus is much smaller and situated near the base of the neuropodium. In posterior somites the parapodia are swollen so that their antero-posterior diameters are greater than in anterior ones and the cirri lie on the posterior surfaces rather than dorsal and ventral. The notosetae are a tuft of slender colorless spines some apparently straight and uniformly narrowed and others have a definite spear-head ending (Fig. 12). A tendency to this form of ending appears in all. At dorsal margin of the notosetal tuft there appear in some parapodia a few that are larger than the others and have a row of finely

toothed plates along one margin. The neurosetae are much heavier than the notosetae and terminate in curved and moderately sharp pointed apices. At a short distance proximal to the apices these setae have series of rows of toothed plates, five or six in all. There are two of these series, but if seen from the side they may appear as one (Fig. 13).

There are twelve pairs of elytra of which the most anterior overlap in the mid-dorsal line, later ones barely meet. The elytral outline is oval and there are no marginal filaments. About three-quarters of the elytral surface has a dense bluish-black color caused by pigment in angular patches. Under low magnification there may be seen numerous light-colored spots with a short spine in the center of each. The antero-lateral region of each elytron is colorless, its anterior portion light colored, its posterior region very dark. The body is colorless showing thus a very great contrast to the dark elytra.

The type is Cat. No. 2889 in the collections of The American Museum of Natural History, Department of Living Invertebrates.

Collected at Digos, Gulf of Devas, Philippine Islands, Nov. 14, 1937, by W. G. Van Name.

BIBLIOGRAPHY

FAUVEL, PIERRE

1932. Annelida Polychaeta of the Indian Museum. *Memoirs of the Indian Museum*, XII, No. 1, pp. 1 to 262, Pls. I-IX.

SARS, G. O.

1872. Some remarkable forms of animal life from the great deeps off the Norwegian coast, pp. i-viii; 1-82; Pls. I-VI.